# Optimizing Services at Charleston-Dorchester Mental Health Center

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**Problem Statement**

Charleston Mental Health Clinic offers a variety of services including but not limited to Crisis Services, Assessments, Group Therapy, Family Therapy and Individual Therapy as well as Care Coordination services. Therapy services are those services that address any goals developed by the client after their initial appointment. These are generally related to the "presenting problem" or what brought them to our Clinic. Some examples of treatment goals may include increasing socialization, decreasing use of alcohol or illegal substances, decreasing angry outbursts, taking medication as prescribed, decreasing panic attacks or increasing time spent between hospitalizations. Care Coordination is the "coordination, integration and allocation of individualized care within limited resources which includes ongoing contact with one or more identified key personnel " (Ziguras and Stuart, 2000). It is a partnership with a client in which social, medical, housing, financial, and occupational needs are identified and then services are accessed, coordinated, monitored and reviewed to ensure these needs are met. At Charleston MHC a referral for Care Coordination is made by the client's therapist at the time in which a need is identified. This could be at the initial assessment or could be several years into treatment. I am attempting to determine which provision of services produces the best outcome in functioning for clients: whether clients who receive therapy plus care coordination show a greater improvement in functioning than those who receive therapy alone.

As with many state agencies in recent deficit years, appropriate allocation of financial and staff resources is crucial. It is the mission of our Center to promote the recovery of persons with serious and persistent mental illness as well as children, adolescents and families with serious emotional disturbances. Recovery involves providing services " in order to help enable a person with a mental health problem to live a meaningful life in a community of his or her choice while striving to achieve his or her full potential" (SAMSA, 2006). While each person's definition of a "meaningful life" will differ, it is my belief that for the majority of persons (with or without mental illness) a meaningful life would include some type of medical care and housing, social and /or occupational activities as well as a certain degree of financial stability. In addition to the direct costs of providing services to clients needing mental health services, our

Center also pays for local hospitalizations of uninsured clients in need of in-patient psychiatric care. It is not uncommon for our Center to pay for inpatient care for such a client at a cost of

$450 per day with an average stay of 3-5 days. Often it is chronic homelessness, financial inability to obtain medications, or the impending loss of a job or electricity that pushes someone from being able to cope to attempting suicide and / or needing hospitalization. It is both sound fiscal responsibility as well as within the mission of our Center to provide the most efficient and effective care and service to our clients.

Maslow's theory of Motivation supports the practice of providing Care coordination services at the very beginning of treatment or at the very least, in addition to treatment. Maslow's hierarchy of needs involves five sets of goals or basic needs of all people. These can be visualized as a pyramid with **Biological and Physical needs** such as air, food, drink, shelter, warmth, sex, and sleep (the basic life needs) on the bottom. Directly above those needs are the **Safety Needs**: protection, security, order, law, stability etc. Next are the **Needs for Belongingness and Love** : family, affection, relationships, etc. Following these needs are the **Esteem Needs**; Achievement, status, responsibility and reputation. At the very top of the pyramid is the **Need for Self Actualization**: personal growth and fulfillment. Very simply put, Maslow's theory is that in order for the higher level needs to be addressed by the individual the lower needs must be satisfied and the person's focus on them to be minimal. If someone is desperately hungry, he or she will be so focused on the physical and emotional toil that hunger is having on him or her that thoughts of belonging and need for affection will be forgotten or denied. Additionally, if Biological and Physical Needs as well as Safety Needs are met then focus on those needs is diminished and the person is able to begin working on issues related to family, relationships etc. (Maslow, 1943). See Appendix 1.

**Data Collection and Operational Definitions**

**GAF-** The Global Assessment of Functioning (GAF) scores are a rating scale, based upon clinical judgment, of an individual's overall level of functioning. Scores range from 0-100 and are

divided into 10 point ranges. A score of 0 indicates inadequate information while a score of 100 indicates Superior functioning in a wide range of activities (APA, 2000, See Appendix 2). GAF scores are collected at Intake and every 90 days after that. In this case, I utilized a time frame for data collection that would allow for two post GAF scores to be collected as well as one GAF score documented prior to the services offered.

**Individual Therapy** involves "face-to-face, planned therapeutic interventions. These interventions focus on the enhancement of a client's capacity to manage his or her emotions and behaviors through effective decision making, developing and acquiring coping skills, making better choices and decisions regarding co-occurring substance abuse, achievement of personal goals, and development of self-confidence and self-esteem"( CMHSP manual, 2013). These goals and interventions must be developed within the first 90 days of service. Individual therapy is the most frequently billed service for our Center and is the service most people think of when they think of "therapy". During the time period in which data was collected our Center provided 8,291 Individual therapy services.

**Care Coordination services** involves the coordination of services to ensure that clients have access to a full range of needed services including the appropriate medical, social, educational, or other services. Care Coordination is "responsible for identifying individual problems, needs, strengths, and resources; coordinating services necessary to meet those needs; and monitoring the provision of necessary and appropriate services (CMHSP Manual, 2013). Care coordination has not been traditionally a "core service" that we focused upon. It has been considered an "adjunct" service to be addressed on an as needed basis. During the time period in which data was collected our Center provided 1,071 Care Coordination services.

**Data collection** involved reviewing two sets of medical records: 1)Clients receiving Individual therapy services as well as Care Coordination services during the time period May 1 – July 31, 2012, and 2) clients that only received therapy services during the same time period. For each data set I randomly identified 285 services that were provided. From that 285 for each set, I reviewed the client's medical record to ensure that the service provided during that time met

the CMHSP standards for that service and eliminated those that did not. I wished to eliminate those services that did not meet the standards in order to limit this project to those who truly received Individual therapy and /or Individual therapy and Care coordination. An example of a service that might have been eliminated would be a service that was billed as individual therapy but was actually a Crisis service. Another example would be a service billed as Care Coordination that was really just a phone call leaving a message. In addition, I eliminated duplicated services. For example, if a client received 6 Individual therapy services during this time period I only counted their GAF scores once. I also reviewed each medical record to ensure that for the therapy AND Care Coordination group each of these services was provided and, for the therapy only group, no Care Coordination services were provided during that time period. I then recorded the GAF score for each of the clients (who met all the previously mentioned criteria) just prior to the March 1, 2012 start date and then 3 and 6 months later. See Appendix 3 and 4.

**Data Analysis**

1) A slightly greater number of clients who received therapy and Care Coordination together saw a positive change in their level of functioning 3 months after those services than those clients who received only therapy (35% vs. 34%). Looking farther out, therapy plus Care Coordination provided an even greater difference in increased functioning than therapy alone (41 % versus 33%) 6 months later. See Table 1 and 2.

Table 1: GAF after 3 months

| | **No change in GAF(functioning remained same)** | **+ change in GAF(improvement in functioning)** | **- Change in GAF(decrease in functioning)** |
|---|---|---|---|
| Treatment only | *50%* | 34% | 16% |
| Treatment plus Care Coordination | *33%* | 35% | 32% |

Table 2: GAF after 6 months

| | **No change in GAF(functioning remained the same)** | **+ change in GAF( improvement in functioning)** | **- Change in GAF(decrease in functioning)** |
|---|---|---|---|
| Treatment only | *44%* | 33% | 23% |
| Treatment plus Care Coordination | *25%* | 41% | 34% |

2) One would expect that for clients receiving therapy or therapy plus Care Coordination one would see an increase in or at least maintenance of GAF functioning. The results did not show this for all clients receiving services. See Table 3. For those receiving therapy alone

84% kept the same or increased their GAF scores at 3 months and 77% kept the same GAF or increased functioning at 6 months. This leaves 16% of those only receiving therapy to be functioning worse after 3 months of treatment and 23% worse after 6 months. Therapy plus care coordination produced somewhat similar scores with 68% maintaining or improving their level of functioning at 3 months and 66% at 6 months. This leaves 32% and 34 % with poorer GAF scores when receiving therapy plus Care Coordination.

Table 3: Stability or Improvement in functioning

| | **0 or + change in GAF @ 3 months** | **0 or + change in GAF @ 6 months** |
|---|---|---|
| Treatment only | *84%* | 77% |
| Treatment plus Care Coordination | *68%* | 66% |

**Possible contributing factors**: A number of Care Coordination services had to be removed from the study because they did not meet the standard for providing this service. In the therapy plus care coordination category 39 Care Coordination services were ineligible for inclusion as they did not meet Medicaid standards for the service. There were 0 services in the therapy only category that were ineligible. The standards for Care Coordination have changed in the past year and thus those people who provide this service on a regular basis are more likely to be appropriately billing this service. It is also those same people who provide this service regularly

who would be most aware of community resources and thus might come to a quicker or more positive resolution to the problem faced by the client.

Another possible contributing factor in the data results is difference in beginning GAF scores. The average GAF score for those receiving only therapy was 60 while that of therapy plus care coordination was 55. The difference in 5 points might not appear to be but actually can be quite significant. A score of 60 would mean moderate psychiatric symptoms resulting in conflicts with peers, or moderate difficulty at work or school. A score of 50 could include hospitalization for suicidal thinking, and severe difficulty in functioning. Obviously, a score of 55 would be somewhere in between these two levels. An example from this data is a client with an initial GAF score of 55 is described by her therapist as: During this summary period client continues as stable. She remains sober and clean from alcohol. She stated that sleep is good and that her medications are helping. She has decided to entertain a relationship. She has hopes of getting married to him. She has been having problems dealing with her son who has been very disrespectful and violent. The same client at a 60 GAF score has the following progress summary showing increased progress in therapy as well as increased social and relational functioning: the client remains stable and has been progressing in a positive way. She has been addressing feelings of depression and loneliness successfully. Client remains sober and has increased her socialization by being a Sunday school teacher, and being a part of her son's soccer team.

I would also have expected a greater difference in the 3 month scores between the two groups but recognize that there is a variety of Care Coordination needs that were addressed during this time period. An example of the different levels of urgency in services provided by our Clinic might be the client who is homeless and services are being provided to link him to community funding for an apartment in which the rent and electricity are paid for 1 year versus the client who has no air conditioning and a medically fragile child who cannot be discharged from the hospital without having one installed. While the first example might take multiple interactions and a few months to successfully complete, the second might only take one phone

call. Both situations are stressful and might result in result in decreased overall functioning but one might be more quickly resolved. I did not attempt to measure any particular level of severity of Care Coordination needs in this study.

**Implementation plan**

The data supports the use of Care Coordination services as an adjunct to traditional therapy services for longer term progress. However, based upon the data from this study, I would like to implement a different means for implementing care coordination services as adjunct to therapy. I believe that by identifying any such needs early in the therapy process we may be able to increase potential positive change in functioning even more as discussed earlier by A. Maslow. Currently our intake team asks all new clients if there are any needs present beyond therapy needs. For those clients who identify any such need the care coordinator could be notified to meet with this client for an "urgent" Care Coordination Assessment before the client leaves that same day. In this way, more serious needs could be identified very early in the therapeutic process. We have recently started initiating this process and are finding that it results in approximately four new clients being identified as needing the more timely assessment per week. We have not had to make any real changes in staffing patterns but allocated a Care Coordination person to handle any of these unexpected needs. Staff has also been willing to fill in on an as needed basis as well. There is no additional financial cost since we are not adding staff but merely adjusting scheduled time spent in the office. When that staff person is not needed he or she simply uses that time to complete paperwork or make phone calls that would have to be completed anyway.

**Evaluation and Summary**

Data collected in this study supports the use of Care Coordination as an adjunct the traditional therapy services that are provided at our Mental Health Center. Because we serve a population that tends to have a greater need for community resources it is important that we

assess if there are any medical, social, occupational, or housing needs that are impacting the client's mental health. As Maslow would have predicted, addressing the environmental needs in a variety of areas resulted in better levels of functioning for those clients than those whose needs were not being addressed. This could be because those needs weren't identified by the client as being a problem, because the therapist did not ask if there were other areas impacting the client or because there were simply not other needs. By changing the order in which our Center offers these services and thus potentially identifying needs earlier I would expect this trend to increase even more. Since all Mental Health clinicians are already trained to complete the GAF and are already completing it on a quarterly basis on each client, using these GAF scores to track differences in functioning does not create an additional hardship for already stretched clinicians. I would propose continued monitoring on these clients for a year to gather outcomes to see if these results hold up in the long run. The information gathered here could also be used to urge other Centers to allocate staff to provide this service as Care Coordination is not a service that all Centers provide on a regular basis. It is a sound fiscal plan for our Center as well as better care for our clients that we continue to provide Care Coordination services in addition to our more traditional therapy services.

References

American Psychiatric Association, 2000. Quick Reference to the Diagnostic Criteria from DSM-IV- TR,

p. 47-48.

Community Mental Health Services Provider Manual, 2013. SC Department of Health and Human Services, p.42)

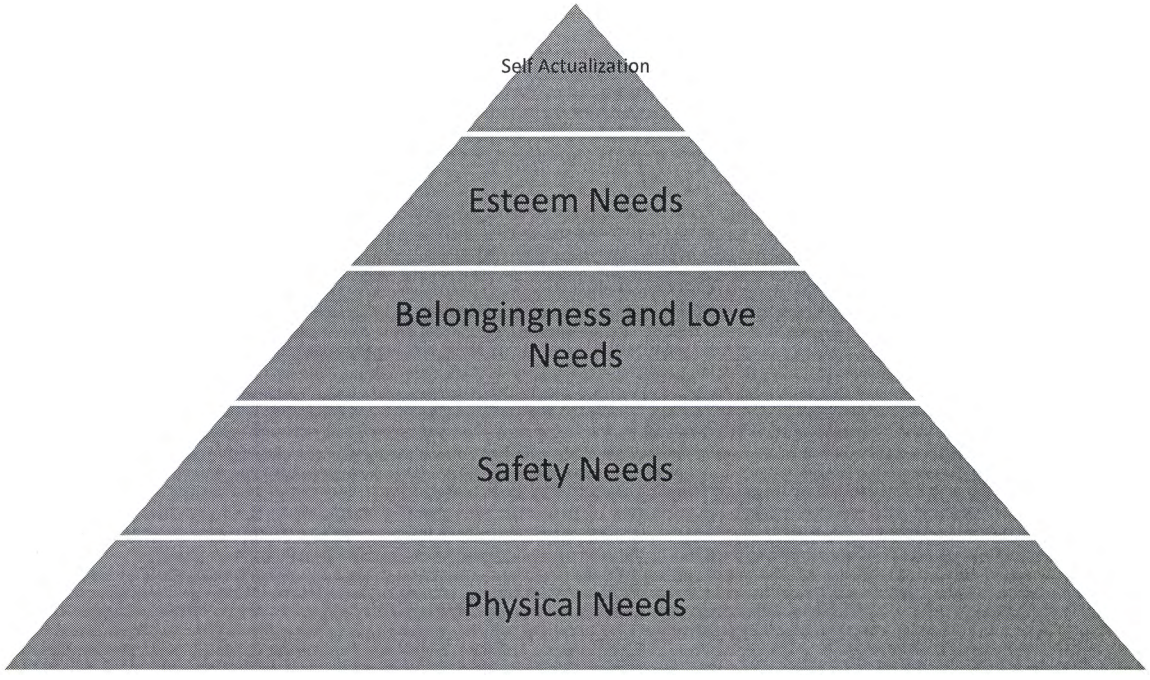
Maslow, A.H. A Theory of Human Motivation . *Psychological Review,* 1943*, 50,* 370- 396.

Substance Abuse and Mental Health Services Administration,2003. National Consensus Statement on Mental Health Recovery.

Ziguras, Stephen J. and Stuart, Geoffrey W. A Meta- Analysis of the Effectiveness of Mental Health Case Management Over 20 Years. Psychiatric Services,51, 2000.

Appendix 1:

# Maslow's Hierarchy of Needs



Appendix 2:

Global Assessment of Functioning (GAF) Scale:

| | |
|---|---|
| 91-100 | Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms |
| 81-90 | Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members) |
| 71-80 | If symptoms are present, they are transient and expectable reactions to psychosocial stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social occupational, or school functioning (e.g., temporarily falling behind in schoolwork). |
| 61-70 | Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social occupational, or school functioning (e.g., occasional truancy or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships. |
| 51-60 | Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers). |
| 41-50 | Severe symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational or school functioning (e.g., no friends, unable to keep a job). |
| 31-40 | Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school). |
| 21-30 | Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day, no job, home, or friends). |
| 11-20 | Some danger of hurting self or others (e.g., suicidal attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute). |

| | |
|---|---|
| 1-10 | Persistent danger of severely hurting self or others ( e.g., recurrent violence ) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.<br>0 Inadequate information |

Appendix 3: Clients receiving case management AND therapy services

| Client | previous GAF | GAF 3 months post | GAF 6 months post | difference between previous GAF and 3 months post | difference between previous GAF and 6 months post |
|---|---|---|---|---|---|
| 1 | 70 | 65 | 55 | -5 | -15 |
| 2 | 55 | 60 | 50 | 5 | -5 |
| 3 | 58 | 62 | 62 | 4 | 4 |
| 4 | 70 | 70 | 65 | 0 | -5 |
| 5 | 58 | 50 | 50 | -8 | -8 |
| 6 | 65 | 50 | 50 | -15 | -15 |
| 7 | 61 | 60 | 55 | -1 | -6 |
| 8 | 65 | 55 | 55 | -10 | -10 |
| 9 | 53 | 55 | 55 | 2 | 2 |
| 10 | 65 | 65 | 65 | 0 | 0 |
| 11 | 50 | 50 | 50 | 0 | 0 |
| 12 | 60 | 60 | 52 | 0 | -8 |
| 13 | 64 | 60 | 52 | -4 | -12 |
| 14 | 55 | 55 | 60 | 0 | 5 |
| 15 | 50 | 55 | 45 | 5 | -5 |
| 16 | 50 | 65 | 45 | 15 | -5 |
| 17 | 50 | 50 | 45 | 0 | -5 |
| 18 | 45 | 50 | 45 | 5 | 0 |
| 19 | 50 | 50 | 50 | 0 | 0 |
| 20 | 55 | 52 | 52 | -3 | -3 |
| 21 | 55 | 55 | 58 | 0 | 3 |
| 22 | 40 | 44 | 45 | 4 | 5 |
| 23 | 45 | 55 | 52 | 10 | 7 |
| 24 | 65 | 55 | 55 | -10 | -10 |
| 25 | 55 | 55 | 55 | 0 | 0 |
| 26 | 70 | 68 | 65 | -2 | -5 |
| 27 | 52 | 55 | 53 | 3 | 1 |
| 28 | 45 | 45 | 45 | 0 | 0 |
| 29 | 52 | 52 | 52 | 0 | 0 |
| 30 | 55 | 55 | 65 | 0 | 10 |
| 31 | 70 | 55 | 55 | -15 | -15 |
| 32 | 55 | 55 | 55 | 0 | 0 |
| 33 | 52 | 52 | 52 | 0 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| 34 | 40 | 55 | 55 | 15 | 15 |
| 35 | 65 | 55 | 40 | -10 | -25 |
| 36 | 65 | 40 | 55 | -25 | -10 |
| 37 | 55 | 41 | 55 | -14 | 0 |
| 38 | 50 | 65 | 60 | 15 | 10 |
| 39 | 58 | 55 | 55 | -3 | -3 |
| 40 | 45 | 45 | 55 | 0 | 10 |
| 41 | 40 | 40 | 40 | 0 | 0 |
| 42 | 40 | 40 | 55 | 0 | 15 |
| 43 | 45 | 18 | 50 | -27 | 5 |
| 44 | 55 | 50 | 55 | -5 | 0 |
| 45 | 60 | 60 | 60 | 0 | 0 |
| 46 | 61 | 55 | 61 | -6 | 0 |
| 47 | 48 | 58 | 58 | 10 | 10 |
| 48 | 65 | 65 | 65 | 0 | 0 |
| 49 | 55 | 50 | 65 | -5 | 10 |
| 50 | 65 | 65 | 60 | 0 | -5 |
| 51 | 60 | 55 | 60 | -5 | 0 |
| 52 | 60 | 58 | 61 | -2 | 1 |
| 53 | 45 | 52 | 58 | 7 | 13 |
| 54 | 65 | 80 | 60 | 15 | -5 |
| 55 | 65 | 70 | 70 | 5 | 5 |
| 56 | 52 | 54 | 56 | 2 | 4 |
| 57 | 55 | 55 | 55 | 0 | 0 |
| 58 | 55 | 45 | 45 | -10 | -10 |
| 59 | 50 | 55 | 50 | 5 | 0 |
| 60 | 55 | 55 | 55 | 0 | 0 |
| 61 | 65 | 60 | 60 | -5 | -5 |
| 62 | 52 | 50 | 50 | -2 | -2 |
| 63 | 55 | 56 | 58 | 1 | 3 |
| 64 | 55 | 75 | 70 | 20 | 15 |
| 65 | 49 | 63 | 50 | 14 | 1 |
| 66 | 52 | 65 | 55 | 13 | 3 |
| 67 | 55 | 55 | 58 | 0 | 3 |
| 68 | 52 | 58 | 58 | 6 | 6 |
| 69 | 60 | 58 | 58 | -2 | -2 |
| 70 | 58 | 59 | 70 | 1 | 12 |
| 71 | 55 | 55 | 52 | 0 | -3 |
| 72 | 55 | 45 | 65 | -10 | 10 |
| 73 | 58 | 50 | 50 | -8 | -8 |
| 74 | 50 | 55 | 57 | 5 | 7 |

| | | | | | |
|---|---|---|---|---|---|
| 75 | 40 | 55 | 65 | 15 | 25 |
| 76 | 52 | 52 | 56 | 0 | 4 |
| 77 | 50 | 50 | 50 | 0 | 0 |
| 78 | 50 | 50 | 50 | 0 | 0 |
| 79 | 50 | 50 | 57 | 0 | 7 |
| 80 | 50 | 45 | 50 | -5 | 0 |
| 81 | 50 | 60 | 55 | 10 | 5 |
| 82 | 50 | 62 | 58 | 12 | 8 |
| 83 | 65 | 60 | 65 | -5 | 0 |
| 84 | 75 | 75 | 65 | 0 | -10 |
| 85 | 50 | 50 | 65 | 0 | 15 |
| 86 | 48 | 52 | 45 | 4 | -3 |
| 87 | 68 | 70 | 70 | 2 | 2 |
| 88 | 45 | 45 | 45 | 0 | 0 |
| 89 | 55 | 55 | 55 | 0 | 0 |
| 90 | 55 | 60 | 60 | 5 | 5 |
| 91 | 55 | 55 | 50 | 0 | -5 |
| 92 | 55 | 55 | 60 | 0 | 5 |
| 93 | 55 | 75 | 60 | 20 | 5 |
| 94 | 55 | 50 | 55 | -5 | 0 |
| 95 | 58 | 50 | 59 | -8 | 1 |
| 96 | 70 | 58 | 70 | -12 | 0 |
| 97 | 50 | 55 | 50 | 5 | 0 |
| 98 | 41 | 51 | 53 | 10 | 12 |
| 99 | 45 | 55 | 55 | 10 | 10 |
| 100 | 55 | 58 | 58 | 3 | 3 |
| 101 | 60 | 70 | 70 | 10 | 10 |
| 102 | 50 | 41 | 49 | -9 | -1 |
| 103 | 55 | 65 | 52 | 10 | -3 |
| 104 | 52 | 65 | 75 | 13 | 23 |
| 105 | 58 | 55 | 50 | -3 | -8 |
| 106 | 55 | 50 | 45 | -5 | -10 |
| 107 | 67 | 55 | 60 | -12 | -7 |
| 108 | 40 | 40 | 40 | 0 | 0 |
| 109 | 50 | 45 | 35 | -5 | -15 |
| 110 | 62 | 62 | 58 | 0 | -4 |
| 111 | 64 | 50 | 70 | -14 | 6 |
| 112 | 54 | 68 | 60 | 14 | 6 |
| 113 | 65 | 66 | 62 | 1 | -3 |
| 114 | 55 | 60 | 62 | 5 | 7 |
| 115 | 40 | 50 | 50 | 10 | 10 |

| | | | | | |
|---|---|---|---|---|---|
| 116 | 60 | 60 | 60 | 0 | 0 |
| 117 | 55 | 68 | 58 | 13 | 3 |
| 118 | 58 | 55 | 60 | -3 | 2 |
| 119 | 45 | 45 | 55 | 0 | 10 |
| 120 | 63 | 60 | 58 | -3 | -5 |
| 121 | 65 | 61 | 80 | -4 | 15 |
| 122 | 60 | 60 | 60 | 0 | 0 |
| 123 | 51 | 59 | 61 | 8 | 10 |
| 124 | 45 | 45 | 45 | 0 | 0 |
| 125 | 55 | 60 | 65 | 5 | 10 |
| 126 | 55 | 52 | 58 | -3 | 3 |
| 127 | 52 | 52 | 58 | 0 | 6 |
| 128 | 60 | 60 | 55 | 0 | -5 |
| 129 | 51 | 60 | 49 | 9 | -2 |
| 130 | 58 | 58 | 55 | 0 | -3 |
| 131 | 65 | 65 | 65 | 0 | 0 |
| 132 | 65 | 65 | 65 | 0 | 0 |
| 133 | 68 | 65 | 65 | -3 | -3 |
| 134 | 70 | 62 | 58 | -8 | -12 |
| 135 | 52 | 52 | 52 | 0 | 0 |
| 136 | 70 | 65 | 65 | -5 | -5 |
| 137 | 65 | 70 | 60 | 5 | -5 |
| 138 | 70 | 70 | 70 | 0 | 0 |
| 139 | 62 | 70 | 70 | 8 | 8 |
| 140 | 65 | 65 | 65 | 0 | 0 |
| 141 | 55 | 52 | 54 | -3 | -1 |
| 142 | 50 | 55 | 55 | 5 | 5 |
| 143 | 50 | 55 | 55 | 5 | 5 |
| 144 | 75 | 60 | 60 | -15 | -15 |
| 145 | 30 | 68 | 76 | 38 | 46 |
| 146 | 70 | 55 | 55 | -15 | -15 |
| | | | | 0.58 | 0.94 |
| | # clts >0 change | | | 51 | 60 |
| | # clts < 0 change | | | 47 | 49 |
| | # clts change = 0 | | | 48 | 37 |
| | | | | 146 | 146 |

Appendix 4: Clients receiving only therapy services

| | previous GAF | GAF 3 months post | GAF 6 months post | difference between previous GAF and 3 months post | difference between previous GAF and 6 months post |
|---|---|---|---|---|---|
| 147 | 60 | 60 | 60 | 0 | 0 |
| 148 | 60 | 65 | 65 | 5 | 5 |
| 149 | 65 | 65 | 65 | 0 | 0 |
| 150 | 52 | 63 | 45 | 11 | -7 |
| 151 | 57 | 60 | 60 | 3 | 3 |
| 152 | 55 | 55 | 55 | 0 | 0 |
| 153 | 60 | 60 | 60 | 0 | 0 |
| 154 | 60 | 60 | 55 | 0 | -5 |
| 155 | 48 | 50 | 50 | 2 | 2 |
| 156 | 68 | 54 | 52 | -14 | -16 |
| 157 | 65 | 65 | 50 | 0 | -15 |
| 158 | 65 | 65 | 65 | 0 | 0 |
| 159 | 65 | 65 | 65 | 0 | 0 |
| 160 | 65 | 65 | 65 | 0 | 0 |
| 161 | 55 | 55 | 55 | 0 | 0 |
| 162 | 45 | 60 | 50 | 15 | 5 |
| 163 | 55 | 65 | 65 | 10 | 10 |
| 164 | 45 | 45 | 45 | 0 | 0 |
| 165 | 50 | 50 | 55 | 0 | 5 |
| 166 | 60 | 60 | 60 | 0 | 0 |
| 167 | 70 | 70 | 65 | 0 | -5 |
| 168 | 65 | 65 | 49 | 0 | -16 |
| 169 | 62 | 60 | 55 | -2 | -7 |
| 170 | 51 | 40 | 51 | -11 | 0 |
| 171 | 70 | 70 | 65 | 0 | -5 |
| 172 | 65 | 65 | 65 | 0 | 0 |
| 173 | 57 | 57 | 60 | 0 | 3 |
| 174 | 55 | 52 | 55 | -3 | 0 |
| 175 | 50 | 55 | 55 | 5 | 5 |
| 176 | 55 | 55 | 55 | 0 | 0 |
| 177 | 65 | 65 | 65 | 0 | 0 |
| 178 | 55 | 65 | 65 | 10 | 10 |
| 179 | 65 | 65 | 60 | 0 | -5 |

| | | | | | |
|---|---|---|---|---|---|
| 180 | 70 | 70 | 70 | 0 | 0 |
| 181 | 50 | 55 | 55 | 5 | 5 |
| 182 | 65 | 65 | 65 | 0 | 0 |
| 183 | 60 | 65 | 65 | 5 | 5 |
| 184 | 65 | 65 | 65 | 0 | 0 |
| 185 | 60 | 65 | 60 | 5 | 0 |
| 186 | 60 | 65 | 65 | 5 | 5 |
| 187 | 55 | 55 | 55 | 0 | 0 |
| 188 | 55 | 55 | 55 | 0 | 0 |
| 189 | 68 | 68 | 55 | 0 | -13 |
| 190 | 68 | 68 | 55 | 0 | -13 |
| 191 | 45 | 50 | 50 | 5 | 5 |
| 192 | 60 | 60 | 60 | 0 | 0 |
| 193 | 65 | 65 | 60 | 0 | -5 |
| 194 | 42 | 62 | 64 | 20 | 22 |
| 195 | 60 | 70 | 55 | 10 | -5 |
| 196 | 60 | 65 | 60 | 5 | 0 |
| 197 | 55 | 57 | 55 | 2 | 0 |
| 198 | 60 | 65 | 65 | 5 | 5 |
| 199 | 60 | 55 | 50 | -5 | -10 |
| 200 | 57 | 65 | 65 | 8 | 8 |
| 201 | 57 | 65 | 65 | 8 | 8 |
| 202 | 57 | 65 | 64 | 8 | 7 |
| 203 | 60 | 60 | 60 | 0 | 0 |
| 204 | 55 | 55 | 55 | 0 | 0 |
| 205 | 60 | 50 | 49 | -10 | -11 |
| 206 | 55 | 55 | 55 | 0 | 0 |
| 207 | 65 | 80 | 80 | 15 | 15 |
| 208 | 70 | 70 | 70 | 0 | 0 |
| 209 | 50 | 50 | 51 | 0 | 1 |
| 210 | 51 | 51 | 61 | 0 | 10 |
| 211 | 60 | 70 | 65 | 10 | 5 |
| 212 | 60 | 60 | 55 | 0 | -5 |
| 213 | 60 | 65 | 70 | 5 | 10 |
| 214 | 65 | 65 | 55 | 0 | -10 |
| 215 | 75 | 60 | 65 | -15 | -10 |
| 216 | 60 | 60 | 50 | 0 | -10 |
| 217 | 65 | 70 | 70 | 5 | 5 |
| 218 | 55 | 60 | 65 | 5 | 10 |
| 218 | 62 | 65 | 55 | 3 | -7 |
| 219 | 60 | 60 | 60 | 0 | 0 |

| 220 | 60 | 68 | 65 | 8 | 5 |
|---|---|---|---|---|---|
| 221 | 67 | 68 | 68 | 1 | 1 |
| 222 | 68 | 55 | 55 | -13 | -13 |
| 223 | 50 | 50 | 50 | 0 | 0 |
| 224 | 67 | 68 | 68 | 1 | 1 |
| 225 | 65 | 62 | 65 | -3 | 0 |
| 226 | 60 | 65 | 65 | 5 | 5 |
| 227 | 50 | 50 | 50 | 0 | 0 |
| 228 | 60 | 60 | 60 | 0 | 0 |
| 229 | 65 | 65 | 65 | 0 | 0 |
| 230 | 49 | 60 | 60 | 11 | 11 |
| 231 | 68 | 67 | 68 | -1 | 0 |
| 232 | 60 | 65 | 60 | 5 | 0 |
| 233 | 55 | 55 | 55 | 0 | 0 |
| 234 | 55 | 50 | 55 | -5 | 0 |
| 235 | 55 | 40 | 50 | -15 | -5 |
| 236 | 68 | 68 | 65 | 0 | -3 |
| 237 | 75 | 70 | 70 | -5 | -5 |
| 238 | 56 | 56 | 56 | 0 | 0 |
| 239 | 69 | 68 | 69 | -1 | 0 |
| 240 | 52 | 62 | 55 | 10 | 3 |
| 241 | 62 | 60 | 60 | -2 | -2 |
| 242 | 68 | 68 | 68 | 0 | 0 |
| 243 | 60 | 53 | 49 | -7 | -11 |
| 244 | 53 | 59 | 59 | 6 | 6 |
| 245 | 55 | 65 | 65 | 10 | 10 |
| 246 | 60 | 57 | 52 | -3 | -8 |
| 247 | 60 | 62 | 62 | 2 | 2 |
| 248 | 65 | 65 | 65 | 0 | 0 |
| 249 | 45 | 45 | 51 | 0 | 6 |
| 250 | 55 | 75 | 65 | 20 | 10 |
| 251 | 55 | 62 | 62 | 7 | 7 |
| 252 | 60 | 68 | 68 | 8 | 8 |
| 253 | 55 | 55 | 60 | 0 | 5 |
| 254 | 69 | 68 | 69 | -1 | 0 |
| 255 | 55 | 60 | 55 | 5 | 0 |
| 256 | 70 | 70 | 70 | 0 | 0 |
| 257 | 65 | 65 | 65 | 0 | 0 |
| 258 | 70 | 70 | 70 | 0 | 0 |
| 259 | 55 | 55 | 55 | 0 | 0 |
| 260 | 70 | 60 | 70 | -10 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| 261 | 55 | 55 | 55 | 0 | 0 |
| 262 | 70 | 60 | 72 | -10 | 2 |
| 263 | 55 | 55 | 55 | 0 | 0 |
| 264 | 65 | 65 | 65 | 0 | 0 |
| 265 | 65 | 65 | 55 | 0 | -10 |
| 266 | 60 | 60 | 60 | 0 | 0 |
| 267 | 60 | 60 | 60 | 0 | 0 |
| total | | | | 1.30 | 0.16 |
| | #clts >0 change | | | 41 | 40 |
| | #clts <0 change | | | 20 | 28 |
| | # clts change =0 | | | 61 | 54 |
| | total | | | 122 | 122 |
| | | | | | |